

Tribal Public Water System Supervision Source Water Assessment and Protection Program: 2007 Direct Implementation Tribal Cooperative Agreement Funding Guidance

SUMMARY:

EPA Region 9 is issuing guidance for the Tribal Public Water System Supervision Source Water Assessment and Protection Program (SWAP). EPA Region 9 intends to award an estimated \$375,000 through Direct Implementation Tribal Cooperative Agreements (DITCAs) ranging in size from \$15,000 up to \$60,000 for SWAP activities. From the proposals received, EPA Region 9 estimates awarding 10 cooperative agreements. The EPA authority for this program is the 2007 Appropriations Act. The Catalog of Federal Domestic Assistance number is 66.473. No matching funds are required.

The purpose of this program is to provide funding to enable federally recognized tribes and eligible tribal consortia within the EPA Region 9 geographic area (Arizona, California, Hawaii and Nevada) who operate at least one public water system (PWS) to identify and assess any possible threats (potential sources of contamination) to their public drinking water supply sources and to develop protection measures to protect these sources against those threats. A PWS is one which serves at least 25 or more persons and/ or has at least 15 connections.

Substantial involvement is anticipated between EPA and cooperative agreement award recipients. Such involvement will include EPA participation (programmatic oversight) in project activities and EPA collaboration on the work plan narrative and organizational structure.

Proposals must be received by EPA Region 9 by **January 16, 2007**.

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SUPPLEMENTARY INFORMATION:

Background and Purpose

The purpose of this program is to provide funding to enable federally recognized tribes and eligible tribal consortia within the EPA Region 9 geographic area (Arizona, California, Hawaii and Nevada) who operate at least one public water system (PWS) to identify and assess any possible threats (potential sources of contamination) to their public drinking water supply sources and to develop protection measures to protect these sources against those threats. A PWS is one which serves at least 25 or more persons and/ or has at least 15 connections. Source Water Assessments include basic

elements: delineating source water areas around the drinking water source, identifying potential sources of contamination that may impact the protection area; determining the susceptibility of the identified potential sources of contamination to a drinking water source; and communicating the results to the served community. Source Water Protection Projects take assessment efforts a step further and require on-the-ground management strategies based on community-wide involvement (e.g., through the design of control measures such as onsite wastewater treatment system management planning, zoning ordinances, public outreach, and contingency plans), to manage identified potential contaminating activities.

Completion of an assessment and source water protection program is crucial in protecting against the pollution of lakes, rivers, streams, and groundwater that serve as sources of drinking water. Source water protection programs can be part of other protection efforts such as watershed protection, pesticide management, or non-point source reduction.

Region 9 is issuing this cooperative assistance agreement guidance for the Source Water Assessment and Protection Program (SWAP) that addresses the following:

1. Public Water Supply Supervision Direct Implementation Tribal Cooperative Agreement Funding
2. Work Plan
3. Reporting
4. Environmental Results
5. Funding Factors
6. Proposal Submission
7. Additional Information

1. Public Water Supply Supervision Direct Implementation Tribal Cooperative Agreement Funding

Direct Implementation Tribal Cooperative Agreements (DITCAs) were initially authorized in the FY 2001 Appropriations Act (Pub. L. No. 107-73, 115 Stat. 686 (2001)) to enable EPA to award cooperative agreements to federally recognized Indian tribes and eligible tribal consortia to assist EPA in implementing federal environmental programs for Indian tribes in the absence of an acceptable tribal program. The approach was developed with the recognition that some tribes are not implementing environmental programs, such as under tribal authority through EPA's "treatment in a manner similar to states" (TAS) process for a variety of reasons. DITCAs provide another avenue for tribes and EPA to partner in implementing meaningful environmental protection in Indian country. Additionally, DITCAs provide tribes with the flexibility and opportunity to develop staff capacity to manage environmental programs, to address specific tribal environmental needs and priorities that are within EPA's authority for direct Implementation, and to determine the scope and pace of tribal involvement, all through a DITCA work plan. The annual DITCA statutory authority states that "EPA may award DITCAs to fund activities for environmental programs that meet either one of the following criteria: 1)

federal programs under environmental laws that clearly require EPA to directly implement in the Tribal context; or 2) federal programs under environmental laws that in the state context EPA is required to directly implement in the absence of an acceptable state program.”

Since PWSS is a program delegated to both states and tribes, activities that EPA staff would normally carry out to directly implement the tribal program are eligible for DITCA funding. For example, training, technical assistance, system capacity development, and source water assessments are generally considered direct implementation activities. However, the following activities are not eligible for DITCA funding:

- Activities associated with general operational costs of a drinking water system and/or activities that are the function of a water utility, such as funding an operator, purchasing lab equipment, normal operation and maintenance, monitoring, or construction activities.
- Exploratory work, (both physical and literature searches) for development of new drinking water source(s).
- Source Water Assessment and/or Protection (SWAP) projects with privately owned water systems
- Please note that research is ineligible for funding as well as other ineligible costs outlined in 40 CFR Part 31, and OMB Circular A-87.

2. Work Plan

Narrative Proposal

Proposals should be double spaced in 12 point or larger print using an 8.5 x 11 inch paper with minimum 1 inch horizontal and vertical margins. The document should be readable MS Word and consolidated into a single file.

Proposal Format and Content

Proposals should follow guidance provided below. It is recommended that confidential information not be included in the proposal.

The following format should be used for all proposals:

All interested in applying must prepare and submit a proposal which will include I) Summary, II) General Background Information, III) Steps for Completing Source Water Assessment Projects, IV) Measures for Source Water Protection Programs and V) Work Plan Table and Content. Suggested elements for inclusion in these sections are listed below.

I) SUMMARY

a. Purpose and Goals. Briefly describe the purpose and goals of the project. Include information on what will be accomplished, how it will serve the tribal members and protect and preserve the drinking water sources.

b. Cost. The total cost of the proposal and a detailed budget justification and should be included in this section.

II) GENERAL BACKGROUND INFORMATION

A brief general introduction giving background information on the Tribe and public water supplies on Tribal lands should be provided. A sample outline with required information is provided below:

A. Reservation size and population; drinking water supply sources; number and ownership status (tribal or privately owned) of public water supply systems; type of public water system (ground water or surface water based); population served by each public water system; surrounding communities and activities (both on and off reservation) that could affect the reservation's drinking water supply sources, such as farming, industry, agricultural production/processing, livestock, septic system failure, etc.

Please prepare and include a table similar to the following example:

| System Name/PWSS ID Number | Source Name | Population per Source | Population Per System | Source Type | Well Depth | In Use (Y/N) |
|-----------------------------------|--------------------|------------------------------|------------------------------|--------------------|-------------------|---------------------|
| Main System | Well 1 | 25 | 150 | ground water | 150 ft | Y |
| Main System | Well 2 | 125 | 150 | ground water | 200 ft | Y |

B. Description of any existing or proposed tribal utility authorities or inter-tribal utilities or consortia that deal with public water supplies.

III) STEPS FOR SOURCE WATER ASSESSMENT PROJECTS (SWAP)

Work plans should include the following steps in completing the assessment and will be evaluated accordingly.

Step 1: Delineate the source water protection areas

A delineated area is the portion of a watershed or ground water area that may contribute pollution to the water supply. Delineations should map the areas that are vulnerable to ground and surface water contamination (source water protection areas). This may include the area surrounding a well or surface water in-take location, in addition to zones of recharge outside of these areas. EPA encourages surveying drinking water sources and respective source water protection areas using a Global Positioning System (GPS). The work plan should indicate the number of wells to be assessed and the proposed delineation method.

Delineation methods include:

- Arbitrary Fixed Radius
- Calculated Fixed Radius
- Uniform Flow Equation

- Delineations using Modeling (e.g. WHPA, WhAEM, Uniform Flow, Modpath, etc.)

NOTE: Wellhead and geologic data collection must be included in the work plan as a task as part of the delineation and must be done before delineating. Data collection can include: well driller logs, pump tests, USGS information, etc.

Step 2: Conduct an inventory of potential sources of contamination within the delineated source water protection areas.

Identify all significant potential sources of drinking water contamination within a source water protection area. The resulting contamination source inventory must describe the sources (or categories of sources) of contamination either by specific location or by area. EPA recommends that potential sources of contamination be surveyed using a Global Positioning System (GPS). In addition, an Inventory process should include:

- Identification of significant potential sources (including Underground injection control (UIC) wells such as septic systems, industrial waste disposal wells and storm water drainage wells);
- Identification of contaminants of concern from each identified source (should also refer to existing water quality data for each of the sources to point out existing contaminants of concern); and
- Review existing sources of information for the geographic area (e.g., use Federal, State, and local databases).

Step 3: Susceptibility analysis determination for each public water system

Determine the water supply's susceptibility to contamination from identified potential sources of contamination. The susceptibility determination can be either an absolute measure of the potential for contamination of the public water system or a relative comparison between sources within the source water protection area. This step enables the Tribe to determine which sources are most threatening to their water system. The susceptibility determination may be based on:

- Hydrologic and hydrogeologic factors such as ground water or surface water movement;
- Characteristics of the contaminants (e.g., toxicity, environmental fate and transport);
- Characteristics of the potential source of the contaminant (location, likelihood of release, effectiveness of mitigation measures);
- Other factors such as well intake and well integrity.

Step 4: Making results of assessment available to public

Distribute the source water assessment results to the public. Assessments are not considered complete until results are communicated to the public. It is recommended that results be included in the Tribe's Consumer Confidence Reports (CCR). Results of the assessments can also be disseminated in public meetings, newsletters, posted at public buildings, via radio announcements, direct mailings, etc.

IV) MEASURES FOR SOURCE WATER PROTECTION PROGRAMS (SWPP)

Tribes should have successfully completed the SWAP process before pursuing funding for the implementation of protection measures. A typical first step in developing SWPPs is creating a source water protection management plan. Management plans should be designed to manage potentially contaminating sources and activities identified in completed SWAPs. Below is a list of suggested management measures and protection tools which may be utilized as source water protection measures. For more examples, see *Protecting Drinking Water: A Workbook For Tribes*, please refer to “**Additional Information**” section below.

Common Protection Measures/Tools

- Onsite Wastewater Treatment System Management Program
- Zoning Ordinances
- Public Outreach and Education
- Source Prohibitions
- Subdivision Ordinances
- Best Management Practices (BMP)
- Contingency Plans

Protection Measure Example 1: Onsite Wastewater Treatment Management Program

Onsite wastewater treatment systems (OWTS), which include septic systems and wastewater treatment plants not connected to a municipal sewer system, are commonly found on Tribal land in Region 9. These systems typically serve casinos, housing clusters, public buildings, daycare centers, and stores. Source Water Assessments often identify OWTS as potential contaminant sources (PCS) which may pose human health risks (e.g. viral and bacterial illness), as well as threats to the environment (e.g. water resource quality). OWTS failure is often the result of inadequate management attention. Effective management is key to ensuring treatment technologies perform as designed and efforts to protect public health are upheld. Development of an OWTS management plan establishes appropriate management strategies to help minimize these risks and is strongly encouraged by EPA Region 9. The following is a list of EPA Region 9's four recommended steps of an OWTS Management Program:

1. Locate and inventory all existing OWTS and relevant hydrogeologic conditions on the reservation.
2. Approve all new OWTS construction prior to building.

3. OWTS operation and maintenance plan.
4. Develop and incorporate OWTS management into reservation ordinances.

Benefits of implementing an OWTS Management Program include:

- Substantially reduce pumping costs
- Create opportunity for business income
- Maximize existing resources
- Reduce costs for repairs, O&M, part replacement
- Effective Planning - Allow for safe and controlled community development and growth
- Ensure protection of ground water resources
- Protect public health by preventing exposure to wastewater and unsafe structures (old septic tanks, open pits, unfenced lagoons, etc.)
- Avoid the installation of sub-par systems in the future
- Maintain a knowledgeable and effective utility staff
- Avoid “emergency fixes” from systems backing up into homes, etc.

Protection Measure Example 2: Contingency Plan

Contingency plans are documents that establish up-to-date procedures necessary to utilize alternative water supply sources in the event of contamination or loss of existing drinking water sources (i.e., alternative water sources in the event of contamination).

The following is a list of components to include in a contingency plan:

- Description of Water System
- Summary of Potential Sources of Contamination
- Emergency Response Procedures to address each scenario
- Alternative Water Supply Options
- Priority Water Users and Conservation Measures
- Notification Roster (i.e., list of contacts in the event of a contaminant spill)
- Public Education/Media Relations
- Training and Practice Runs
- Event and Action Log

V) WORK PLAN TABLE AND CONTENT

The proposal should include a detailed work plan which states the tasks to be completed, the outputs and deliverables to be accomplished, the amount of time devoted to each task, the staff responsible to complete the work, the time schedule by which tasks are to be started and completed, and the funding required for each task.

Please note that proposed work plan task schedules should allow sufficient time to

complete each task.

Sample Work Plan Table

| RECIPIENT NAME AGREEMENT ID # (DI-#####-#) | | WORK PLAN TASK TABLE | | |
|---|---|--|---------------------------------------|-------------------|
| Task Description | Output/ Deliverable | Hours (entity) | Schedule (start date- end date) | Cost |
| 1. Delineation of source water protection area using WhAEM software | Delineation Report - GIS Maps of Source Water Areas | WQ Specialist (80hrs) WTR TECH (35 hrs) | | \$... |
| 2. Potential contamination source (PCS) inventory | Contaminant list | WQ Specialist (70hrs) WTR TECH (40hrs) | | \$... |
| 3. Susceptibility Analysis | Susceptibility report ranking PCS found in Task 3. | WTR TECH (30hrs) | | \$.... |
| 4. Public Education | Newsletter, CCR, documentation of results distribution. | WTR TECH (25 hrs) | | |
| | | | | Total Cost: \$... |

- The work plan must clearly state the deliverables at the conclusion of the awarded grant. These outputs should reflect the four SWAP steps and/or SWPP protection measures
- The work plan must also account for quarterly reports.

The work plan must clearly delegate roles and responsibilities:

1. Tribal Contact

- Role: (i.e. Project Officer)
- Name, phone, email, fax
- Responsibilities: (It is critical to clearly outline what is to be expected of the tribal employee or contractor before a DITCA is awarded.)
- List qualifications and education needed and/or training to be completed.

2. Tribal Employees or Contractors (generally, contracts must be competed, see 40 CFR Part 31.36). These individuals are not EPA employees, nor are they EPA contractors.

- Status (i.e. Tribal employee, or contractor)

- b. Name, phone, fax, email (List if known)
- e. List responsibilities (It is critical to clearly outline what is to be expected of the tribal employee or contractor before a DITCA is awarded.)
- f. List qualifications and education needed and/or training to be completed.

2. EPA Contact

- a. Role: Project Officer
- b. Name, phone, email (list if known).
- c. Responsibilities: provide substantial involvement in the form of programmatic oversight, and review and comment on agreement activities and outputs/deliverables.

3. Quarterly Reporting

Strong and effective grant management is critical to our success in accomplishing Tribal SWAP goals. The SWAP DITCA work plan and quarterly reports are the basis for the management and evaluation of performance under the cooperative agreement. EPA Region 9 strongly recommends use of the following optional template for quarterly reporting.

Sample Quarterly Report Table

| RECIPIENT NAME AGREEMENT ID # (DI-#####-#) REPORTING PERIOD | | | | | QUARTERLY REPORT |
|---|---|--------------------------------|-------|---------------------------------------|---------------------------------------|
| Task Description | Output/Deliverable | Schedule (start date-end date) | Cost | Task Status/ Current Quarter Progress | Estimated Funds Spent Current Quarter |
| 1. Delineation of source water protection area using WhAEM software | Delineation Report - GIS Maps of Source Water Areas | | \$... | | \$... |
| 2. Potential Contamination Source (PCS) inventory | Contaminant list | | \$... | | \$... |
| 3. Susceptibility Analysis | Susceptibility report ranking PCS found in Task 3. | | \$... | | \$... |
| 4. Public Education | Newsletter, CCR, documentation of results distribution. | | \$... | | \$... |

| | | | |
|--|-------------------------|--|--|
| | Total Cost: \$... | | Total Funds Spent Current Quarter: \$... |
|--|-------------------------|--|--|

4. Environmental Results

Pursuant to EPA Order 5700.7, “*Environmental Results under EPA Assistance Agreements*,” EPA requires that all grant and cooperative agreement recipients adequately address environmental outputs and outcomes. Outputs and outcomes differ both in their nature, and in how they are measured. **Outputs:** The term “output” means an environmental activity, effort, and/or associated work products related to an environmental goal and objective, that will be produced or provided over a period of time or by a specified date. Outputs may be quantitative or qualitative but must be measurable during an assistance agreement funding period. **Outcomes:** The term “outcome” means the result, effect or consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective. Outcomes may be environmental, behavioral, health-related or programmatic in nature, but must be quantitative. They may not necessarily be achievable within an assistance agreement funding period. EPA will work with selected applicants to include a description of how selected projects fit in with EPA’s Strategic Plan. Work plans must include all applicable strategic goals, objectives, and sub-objectives.

Sample Environmental Results Table

| EPA Strategic Plan Goal 2: Clean and Safe Water- Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife. Sub objective 2.1.1: Water Safe To Drink: Percentage of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection. Objective 1: Protect Human Health by reducing exposure to contaminants in drinking water (including protecting source waters), in fish and shellfish, and in recreational waters. | | | |
|---|---|----------------------------------|---|
| Task | Interim Outcome | Output | EPA Strategic Plan Target |
| Delineation | First step will be accomplished in conducting a source water assessment of the drinking water source. | Written delineation report, map. | -Number of Tribal water systems that have completed a source water assessment with national guidelines (the 4 steps). |
| Potential Contaminant Source (PCS) Inventory | Second step will be accomplished in conducting a source water assessment of the drinking water source(s). | Written PCS inventory report. | -Same as above. |

| | | | |
|-------------------------|---|---|-----------------|
| Susceptibility Analysis | Third step will be accomplished in conducting a source water assessment of the drinking water source. The result of this step will be used to develop a baseline of the drinking water system's current susceptibility to contaminants. | Written susceptibility analysis report. | -Same as above. |
| Public Education | Increase Tribal community's, and public's knowledge about source water protection. | Newsletter, CCR, documentation of results distribution. | -Same as above. |

5. Funding Factors

Funding allocation will be based on responses to the following:

- A. Summary. The proposal should describe the purpose and goals of the project in no more than 1 page.
- B. Cost. The total cost of the proposal and a detailed budget justification should be included.
- C. Reservation background information should be included in the proposal. (See section 2.II) General Background Information.) The background information section should include the tribe's public health need and/or the need to develop tribal capacity to establish base level environmental protection of drinking water supply sources. Please limit to 2 pages or less.
- D. Steps for completing a source water assessment should be clearly identified within 2 pages. (See section 2.III Steps for Completing Source Water Assessment Projects.)
- E. As applicable, source water protection program development should describe management tools and protection measures to be used to address previously identified potential contaminant sources. (See section 2.IV Measures for Source Water Protection Programs.) Please limit to 2 pages or less.
- F. Proposed work plan should clearly detail tasks to be completed, the outputs and deliverables to be accomplished, the amount of time devoted to each task, funding required for each tasks, and the time schedule by which tasks are to be started and completed, (See section 2.V Work Plan Table and Content.)
- G. Roles and responsibilities must be clearly delegated (see section 2.V Work Plan Table and Content).
- H. Environmental Results must be characterized and must quantify environmental and public health benefits (see section 4. Environmental Results).
- I. Is one or more activity in the work plan the function of a water utility, such as operation and maintenance, or construction of a facility? (Yes/No)

6. Proposal Submission

All hardcopy proposals must be received by EPA Region 9 by January 16, 2007.

- Proposed project start dates should be October 1, 2007. Projects should be completed within 2 years.
- Please do not submit proposals that duplicate the functions of other grant programs.
- Emailed submissions will not be accepted. Please send one hardcopy of the proposal to: Tribal SWAP DITCA Proposals
U.S. EPA Region 9 (WTR-9)
75 Hawthorne St.
San Francisco, CA 94105

It is unlikely that our available funding will allow us to fund all proposals, or to fully fund all selected proposals. Consequently, selected applicants may be offered funds in an amount less than their proposal requests. Funding for these projects is not guaranteed and is subject to availability of funds. EPA reserves the right to partially fund proposals by funding discreet activities, projects, or phases of proposals.

EPA reserves the right to reject all proposals and make no awards under this announcement.

Notification

Tribes whose proposals will not be funded will be notified in writing by **March 16, 2007**.

Tribes whose proposals will be partially or fully funded will be notified in writing by **March 16, 2007**. These tribes will be sent further instructions for submitting a full application to EPA. Submission of an application is not a guarantee of funding. Deadlines must be met and the work plan must be approved by the EPA Project Officer for funding to occur.

Additional Submission Information

Tribal entities will follow administrative requirements under 40 Code of Federal Regulation (CFR) Part 31, and Office of Management and Budget (OMB) Circular A-87.

Confidential Business Information: It is recommended that confidential information not be included in the proposals. However, in accordance with 40 CFR Part 2.203, applicants may claim all or a portion of their application/proposal as confidential business information. EPA will evaluate confidentiality claims in accordance with 40 CFR Part 2, Subpart B. Applicants must clearly mark applications/proposals or portions of applications/proposals they claim as confidential. If no claim of confidentiality is made, EPA is not required to make the inquiry to the applicant otherwise required by 40 CFR Part 2.204(c)(2) prior to disclosure.

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7. Additional Information

Reporting

Quarterly and annual project status reports and a final report will be required. Quarterly reports are due within 30 calendar days after the end of each Federal fiscal quarter. Quarterly reports for both SWAP and SWPP projects should include: summary and status of each task as identified in work plan; explanation of delays and expected date of completion, if applicable; copies of any deliverables; and expenditures per each task to date. The final report for SWAP and SWPP projects should summarize the project and be a synopsis of the items listed above. The final report of a SWAP project should also identify potential SWP measures to be implemented.

Outreach Materials

Protecting Drinking Water: A Workbook for Tribes is produced by Water Education Foundation with funding and assistance from EPA. It provides guidance on understanding the Source Water Assessment and Protection Programs and their importance. *Protecting Drinking Water: A Workbook for Tribes* is available online at the following URL: <http://www.watereducation.org/specialprojects.asp#tribalbook>. To request a hard copy, contact EPA. Not all SWAP and SWPP activities and measures listed in *Protecting Drinking Water: A Workbook for Tribes* may be funded under this grant. Contact EPA for sample OWTS Operation and Maintenance Tracking Sheet and a detailed description of OWTS Management Program steps.